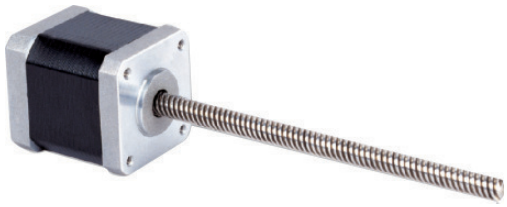
Digital Linear Actuator (External Nut)



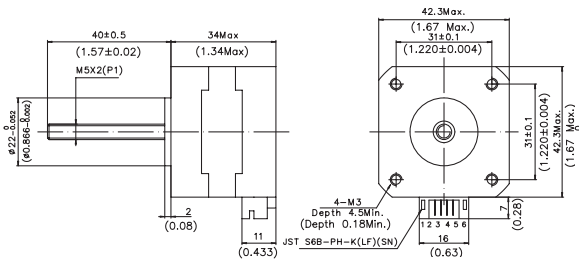
Description

Conversion of rotary to linear motion inside a linear actuator is accomplished through a threaded nut and lead screw. The external shaft is threaded. In order to generate linear motion the lead screw must rotating together with rotor, and the shaft threads engages the nut resulting in linear motion. Changing the direction of rotation combination determines the linear travel per step of the nut. The travel length and speed can be digital controlled by the input of data pulses. Moons DLA 16HY0416-02N, is designed as travel of 0.004mm per step and can be accurately controlled to drive 40mm movement by a 10K data pulses input. Application: Various zoom controls, X-Y stages, as well as other linear motion control applications.

General Specifications

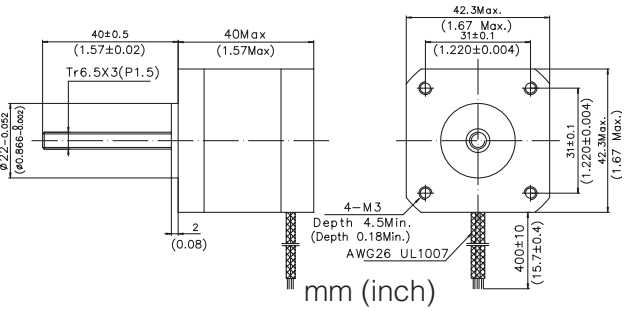
Model Number	Number of leads	Step Distance		Rated Current	Resistance per Phase	Inductance per Phase	Rotor Inertia		Motor Mass	
		mm	inch	A	ohm	mH	g.cm²	oz-in²	kg	lb.
17HD0007-34	4	0.01	0.0004	0.4	35	44	38	0.21	0.20	0.44
17HD2405-20N	4	0.015	0.0006	0.5	25	45	57	0.31	0.24	0.53
17HD4001-15N	4	0.04	0.0016	0.4	30	45	38	0.21	0.20	0.44

Mechanical Dimension



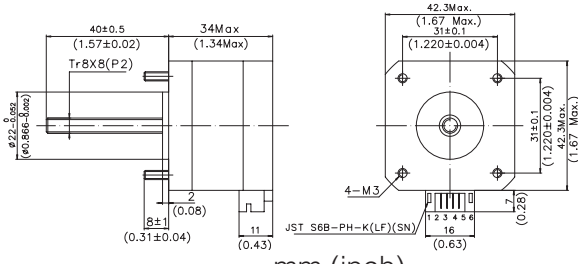
mm (inch)

17HD0007-34



mm (inch)

17HD2405-20N

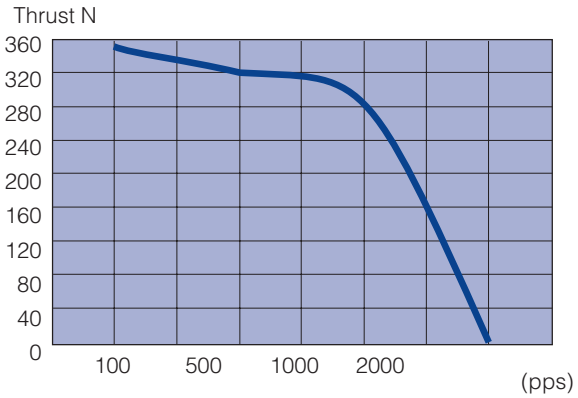


mm (inch)

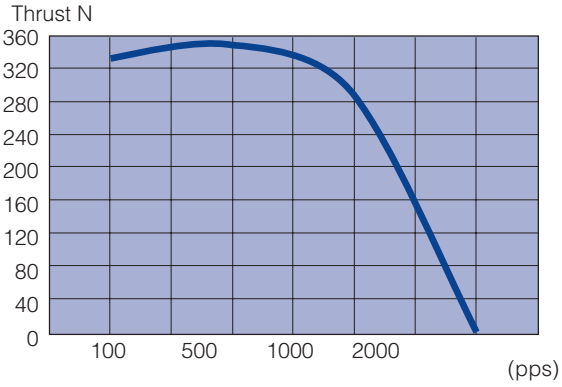
17HD4001-15N

Dynamic Torque Curves

Speed Vs Thrust
17HD0007-34
0.4A/24V



Speed Vs Thrust
17HD2405-20N
0.5A/24V



Speed Vs Thrust
17HD4001-15N
0.4A/24V